

## 1 Terrestrial Access

2 Access to the terrestrial portion of the conduit system is via a combination of public and  
 3 private roads, which are shown in Figures 2-5a through 2-5d. A description of each  
 4 proposed access route from the Sandspit Beach parking lot manhole to the cable  
 5 station is provided in Table 2-3.

6 **Table 2-3. Access Routes to Manholes within the Terrestrial Segment**  
 7 **(West to East from State Park to SLO Cable Station)**

| Manhole Numbers                             | Access Route(s)   | Notes/Special Considerations   |
|---|---|--|
| 109F through 107 1/2F<br>(3 total manholes) | Pecho Valley Road and Access Road to the Sandspit Beach parking lot                                       | These are hard surface public roads that offer all weather access to manholes.   |
| 107F through 98F                            | Hazard Canyon Road (within the Montaña de Oro State Park) connects to Pecho Valley Road (see Figure 2-5a) | This road is an improved gravel road on park property. Hazard Canyon Road is accessible to vehicles eastward to the horse camp area. Sand/dirt horse trails are approximately 15 feet wide. This route is accessible year around.  |
| 96F to 89F                                  | Rim Trail (within the Montaña de Oro State Park)  | Access is a horse trail that consists of intermittent hard pack clay/shale and sand. The access between manholes 96F and 92 is restricted to smaller equipment only, as discussed below, due to sensitive habitat and narrow trail width (3 to 5 feet [0.9 to 1.5 m] in some areas).<br>Access is year-around although the project plan is to access this portion of the route from Silva's access road so that pulling can occur down hill (see Silva access road discussion below).<br>There are some portions on Rim Trail that have eroded and will need repair (see below). |
| 92 to 55                                    | Silva Access Road   | This is a private access road that exists on the Silva property. It begins at Clark Valley Road (a hard surface public road that offers all weather access to several of the other access roads and manholes) and is passable year-around but during wet weather four-wheel drive vehicles are required as it can get muddy.   |

**Table 2-3. (Continued)**

| <b>Manhole Numbers</b> | <b>Access Route(s)</b>                              | <b>Notes/Special Considerations</b>   |
|------------------------|---|---|
| 92 to 55               | Silva Access Road                                   | Los Osos Creek, which will not be crossed, is between manholes 64 and 69 ½. Access to manhole 69 ½ on the east side is from the Boam access road which is a private gravel/dirt road that begins at Clark Valley Road and is used to access manholes 64 to 55 from just east of Los Osos Creek to near Clark Valley Road.<br>No improvements are necessary on the Silva Access Road.  |
| 51 to 42               | California Coast Properties Access Road             | A private improved gravel road that begins at Clark Valley Road and is in very good condition.<br>No improvement to this road is necessary.<br>Just east of manhole 45 is an impasse. Access on the east side of this impasse is from the Beecham Access Road, a private gravel/dirt road that begins at Clark Valley Road.<br>In wet weather this access is avoided so as to avoid damage to the field. In these instances, the Swift Access Road can be used. No improvement to this road is necessary. |
| 39 to 32 ½.            | Swift Access Roads                                  | These two private roads begin on Clark Valley Road with the west road crossing a pasture. This route would only be used during dry weather. The east road is an all-weather gravel road.<br>No improvements are necessary to this road.   |
| 32 ½ to 25             | Spradlin Access Road                                | This is a private gravel/dirt road that begins at Los Osos Valley Road (a hard surface public road that offers all weather access to several of the other access roads and manholes) and is the primary access to homes on the property.<br>No improvement to this road is necessary.   |
| 28 ½ to 19             | Jorgensen Access Road and/or Twisselman Access Road | Both are private gravel/dirt roads, with Jorgensen beginning at Los Osos Valley Road and Twisselman beginning at Prefumo Canyon Road.<br>No improvements to either road are necessary.  |
| 15 to 9 ½              | Knecht Heating and Plumbing Access Road             | This is a private improved paved/gravel road that begins at Los Osos Valley Road.<br>No improvement to this road is necessary.  |

**Table 2-3. (Continued)**

| Manhole Numbers   | Access Route(s)                           | Notes/Special Considerations  |
|---|---|---|
| 15 to 9 ½   | Knecht Heating and Plumbing Access Road   | Sawyer/Boydson/Simmonds Access Road, a gravel/dirt road that parallels a creek in the bottom of the valley, can be used as an alternate access to these manholes. |
| SLO cable station to manhole 4 ½ and the one buried pull box on the route | San Luis Obispo Cable Station Access Road | This is across the open field behind the cable station and is best used during dry weather; however, it is passable year-around.                                  |

See Figures 2-5 a through d for locations.

The width of the “ridge route” corridor and access routes varies with terrain and sensitive habitat/species limitations. In general, the width of the routes ranges from 20 feet (6 m), in areas where no restrictions exist, to 10 feet (3 m) within areas that support special status species habitat such as the Morro shoulderband snail. Improvements and/or restrictions along the access routes include:

- Between manholes 96 and 92F, equipment will be restricted in size and type. Only equipment less than 75 in (191 cm) wide, such as the Bobcat grader or Case loader, will be allowed to operate in this area. Rope blowing and cable pulling equipment (including compressors) will be limited to portable-types that can be mounted on the smaller vehicles described;
- In the span between manholes 94F and 92F several lengths of eroded trail will be repaired. Repairs will consist of: removing sediment from behind seven of the eight baffle boards; adding additional baffle board and extending two existing baffle boards; and filling eight eroded areas with a total of approximately 25 cubic yards (CY) (19 cubic meters [m<sup>3</sup>]) of sand-cement filled bags and backfill. Backfill will be the material removed from behind the existing baffle boards. Baffle boards direct the water away from the easement and preclude erosion. The baffle boards will be constructed with hand tools by laborers aided by the Bobcat or Case loader. The same loader that removed the material will transport the fill material which will be placed and compacted by hand;
- Equipment restrictions and procedures exist due to sensitive habitat spans inside the Montaña de Oro State Park between manholes 109F and 86. These restrictions necessitate the use of smaller vehicles to take equipment to manhole 96 (an intermediate manhole) on Rim Trail. Access is from Hazard Canyon (through the pipe gate) as described in the previous section. The distance from

Hazard Canyon Road to manhole 96 is approximately 100 feet (31 m) and this area will be cleared prior to construction to facilitate access. Manhole 96 is strategic because it is located at the bottom of Rim Trail. At this location, the contractor will be able to take advantage of gravity to facilitate cable placement;

- Between manholes 79 ½ and 74, the easement is restricted to foot traffic only; no motorized equipment will be allowed within this span. This is to protect the surface vegetation that has not completely reestablished since original construction in 1990. Cable placing will be accomplished by bringing vehicles and equipment down to manhole 79 ½ from the Silva Access Road and up to manhole 74 from the Silva Access Road near the horse corral;

- The easement across Los Osos Creek, between manholes 69 ½ and 64, will not be crossed. The Silva Access Road will be used to access manhole 69 ½ from the west and the Boam Access Road will be used to access manhole 64 from the east; and

- Restrictions on the remaining portions of the route will not be required.

### **Terrestrial Segment Equipment**

For cable pulling operations, two-ton, two-axel, four-wheel drive trucks, which are permitted for normal highway driving, will likely be used. The trucks used for splicing operations are smaller and consist of a heavy-frame truck with an enclosure for splicing mounted on the back. Cable reel trailers, pulled by conventional pick-up trucks, and also some one-ton transport and maintenance trucks will be used for carrying laborers and miscellaneous tools and supplies to and from the work area. Use/movement of all equipment utilized and procedures employed will be confined to the easement area or existing roads.

### **Laydown and Storage Areas**

The installation contractor is expected to utilize the San Luis Obispo Cable Station as a staging yard where cable reels and other equipment needed for the Project will be stored. This space is enclosed by security fencing and all surfaces are improved (paved or gravel). In addition to this yard, AT&T has identified two other possible storage/lay-down areas where the contractor could store or temporarily place equipment and materials. One location is manhole 89F located in Montaña de Oro State Park. This is under a eucalyptus grove and is on relatively flat ground (see Figure 2-5a). The

other location is located on the Silva property within a horse corral (see Figure 2-5b). Once the cable has been placed and spliced, the contractor will remove the equipment and check for areas of ground disturbance that may need restoration.

#### **Conduit Proofing**

Cable placing is accomplished by first blowing rope into the inner duct of the vacant conduit into which the new cable will be placed. This is accomplished with a conduit “pig” and a trailer mounted air compressor (in restricted areas, this compressor can be portable). After the rope is placed, a solid mandrel is passed through the conduit to ensure its integrity (“proofing”). Once proofing is completed, cable placing can begin. This is accomplished by first positioning a reel of cable over an “intermediate” manhole. This reel is transported to the manhole by the cable truck. This first set-up position is a manhole other than the “splice” manhole.

If an inner duct is discovered to be collapsed during conduit proofing, it would need to be repaired before cable pulling could begin within that span. Repair would be accomplished using a back hoe to excavate an area of up to 20 feet<sup>2</sup> (1.9 m<sup>2</sup>) wide and 4 feet (1.2 m) deep around the blockage. An area approximately 10 feet<sup>2</sup> (0.9 m<sup>2</sup>) wide and 4 feet (1.2 m) deep would be excavated at the one buried pull box at the far east end of the route (see Figure 2-5d).

#### **Cable Pulling**

With the cable reel positioned at an intermediate manhole, the cable pulling truck is then positioned over the next intermediate manhole and the cable is pulled to that location (in restricted areas, this cable pulling can be accomplished with portable equipment). Because more intermediate manholes are in the cable span (each span has at least three intermediate manholes between the splice manholes) the cable must be pulled through and out of the manhole and “figure-eighted” on the ground. This procedure removes all the cable from the reel and exposes the end so that it can be fed back into that manhole and pulled into the next intermediate manhole. The process is continued when the pulling truck moves to the next intermediate manhole and pulls the figure-eighted cable into that manhole. This procedure is repeated until all the cable for one span is placed, or pulled.

Figure-eighting is accomplished by hand and requires an area of approximately 300 feet<sup>2</sup> (28 m<sup>2</sup>) to be accomplished safely; up to 600 feet<sup>2</sup> (56 m<sup>2</sup>) will be used for figure-eighting in areas with no sensitive habitat restrictions. If access is not an issue

1 and a pulling truck can be positioned at the intermediate manhole, the cable can be  
2 taken up directly onto an empty reel. This eliminates the need to figure-eight the cable.

### 3 **Cable Splicing**

4 Cable splicing is accomplished by positioning the cable splicing trucks (or vans) at each  
5 splice manhole. Once set up at the manhole, the fiber ends, or power cable end, are  
6 fed into the van where technicians splice the ends together. This “splice” is then coiled  
7 and racked inside the manhole and the lid is put back on.

### 8 **Ground Bed**

9 The ground bed will comprise up to seven, 1.5 by 5.0-foot (0.5 by 1.5 m) anodes placed  
10 into 25 to 35 foot-deep (8 to 11 m) vertical holes spaced approximately 10 feet (3 m)  
11 apart, placed at the San Luis Obispo Cable Station as illustrated in Figures 2-5d and  
12 2-6. Each anode has a copper ground wire lead that extends up to the surface where  
13 they are all connected by a single copper ground cable which is then routed back to the  
14 cable station in a new conduit. This latter new conduit will be installed by boring under  
15 a combination of earth and asphalt parking surface. Inside the station the cable will be  
16 connected to the various transmission components, thus grounding the system.

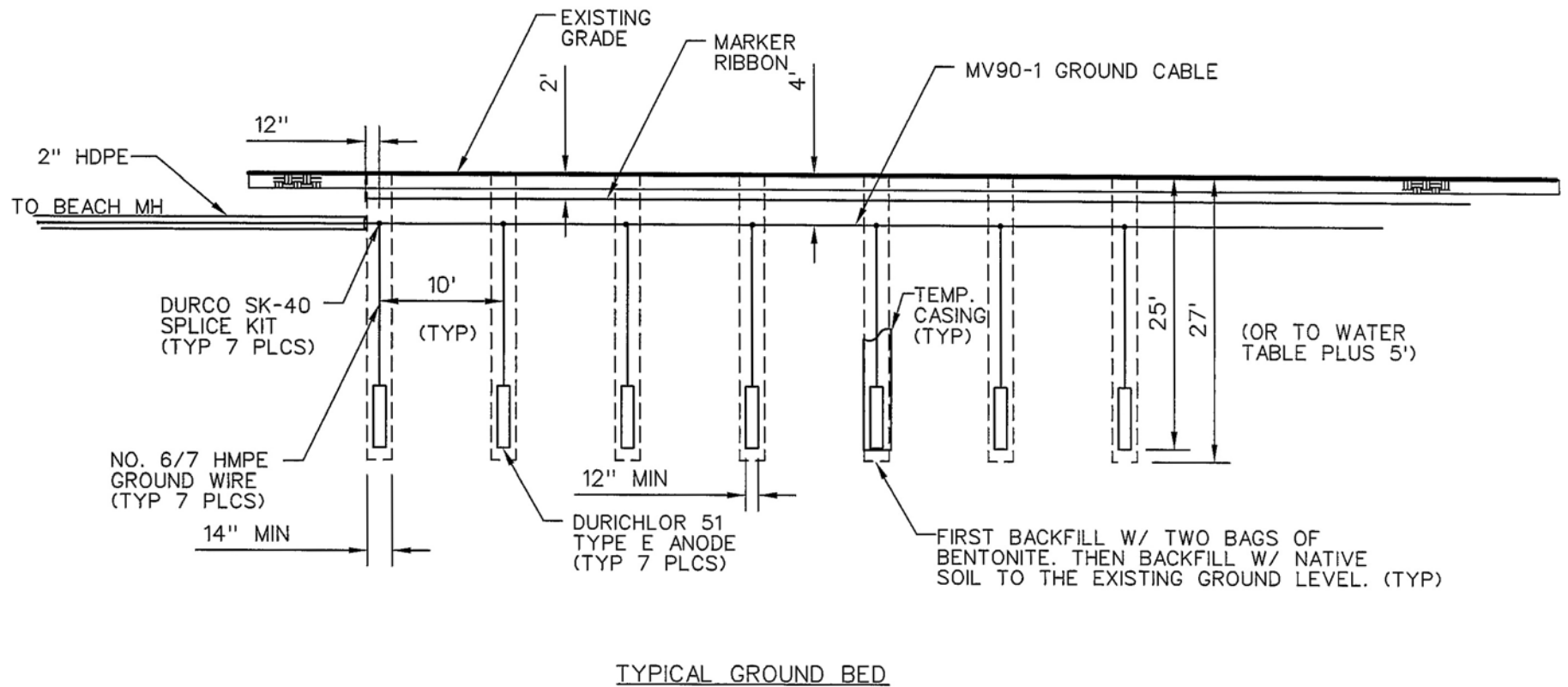
### 17 **Terrestrial Segment Schedule**

18 Up to six weeks will be required to install the two onshore cables from the Sandspit  
19 Beach parking lot manhole to the cable station and to install the ground bed.

### 20 **Shore-end Segment**

21 Shore-end operations include diver excavation of sediment around the conduit, pulling  
22 one, self-powered marine cable through the existing beach manhole and conduit,  
23 anchoring the cable inside the Sandspit Beach parking lot manhole, splicing the marine  
24 cable to the terrestrial cables, and performing post-lay burial of the marine cable in the  
25 ocean between the end of the conduit and the 98-foot (30 m) isobath.

26 Onshore support equipment for this operation will include a winch, D8 Caterpillar,  
27 backhoe, compressor, pick-up truck(s), and possibly a small mobile crane. A portion of  
28 the Sandspit Beach parking lot will remain open during most of the work with barrier  
29 fencing used to protect the public during landing preparations. On landing day, the  
30 parking lot will be closed for public safety. The parking lot closure will be coordinated  
31 with local park management personnel.



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Back of Figure 2-6



## **Bore Pipe Exposure, Cleaning and Preparation**

A trench will be excavated in the Sandspit Beach parking lot with a backhoe to expose the land end of the conduit which is located about 20 feet (6 m) seaward from the manhole. Removed sediment will be stored on-site and used to backfill the trench following completion of shore-end operations. Following exposure of the conduit, air will be pumped into the pipe to open the one-way valve located at the offshore end of the conduit. Air released through the pipe will migrate through the marine sediments where it will aid divers in locating the conduit terminus which is approximately 2,220 feet (677 m) offshore of the mean high tide line.

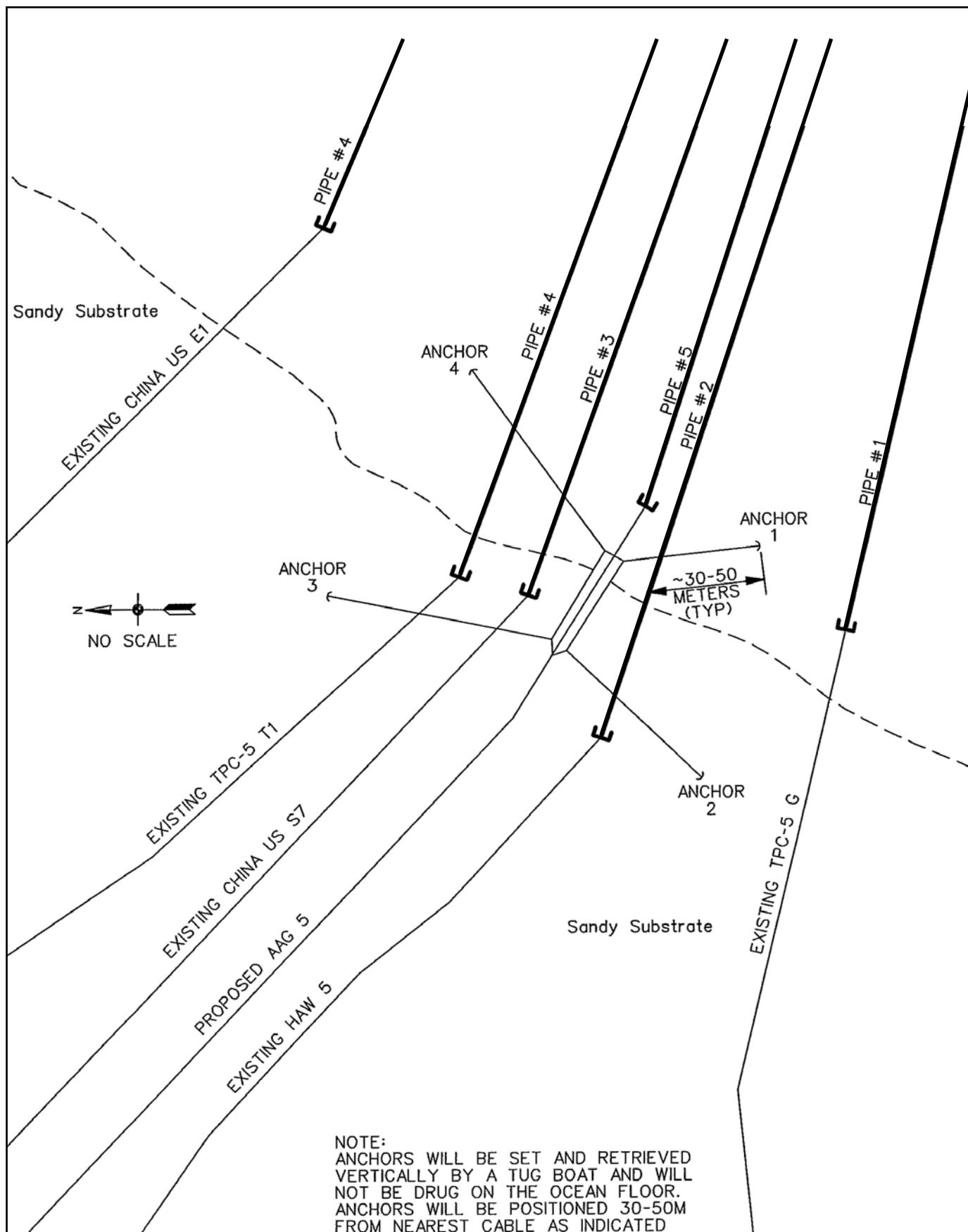
In-water operations will be completed from the primary work boat, expected to be a vessel up to 200 feet (61 m) in length, which will support dive operations and will be anchored approximately 50 feet (15 m) seaward (west) of the end of the conduit. The work boat will use a four-point mooring with an anchor spread radius of approximately 330 feet (100 m). This boat will be accompanied by a smaller, secondary work boat, (see Appendix D for details on the vessel), which will set and retrieve anchors as well as shuttle crew between the work boat and Morro Bay harbor. All anchor locations will be pre-positioned and anchors will be vertically set and retrieved to reduce seafloor scarring from anchor drag. The anchor plan for the work boat is provided in Figure 2-7.

The contractor will deploy divers who will use water/air jets to excavate an estimated 30 CY (23 m<sup>3</sup>) around the end of the conduit to expose it for preparation. Once the end of the conduit is exposed, a buoy will be attached to mark its location.

If the process of pumping air through the conduit from the Sandspit Beach parking lot has not sufficiently removed debris in the pipe (either from initial installation or from valve intrusions as it laid buried), the pipe will be flushed with potable water to complete the cleaning. After the pipe has been flushed, a 0.8 in-diameter (2 cm) wire rope will be installed into the bore pipe for the cable pulling operation. This rope will also be used to pass various brushes, swabs, and mandrels through the pipe to ensure the pipe diameter is sufficient for the marine cable and to remove any burrs or edges within the conduit. The pipe must be thoroughly prepared in this manner to ensure a safe back-pull without risk of damage to the marine cable. The pipe preparation work will take up to five days to complete.

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Back of Figure 2-7

## **Cable Pulling and Splicing**

Cable pulling into the conduit will be accomplished from behind the existing Sandspit Beach parking lot manhole (but still entirely within the footprint of the paved parking lot). A 10 ton (9,100 kg) winch, anchored to a temporary “dead man” (a D5 Caterpillar tractor), facilitates the pulling. Offshore and following relocation of the work vessel, the dynamically positioned cable ship (expected to be the C.S. Global Sentinel, see Appendix D for details on the vessel) will be positioned approximately 330 feet (100 m) seaward of the end of the conduit. The diver support vessel will be located approximately 165 feet (50 m) to the side of the cable ship and will support the divers who will install cable chutes to the end of the conduit and floats to the end of the cable, in preparation for cable pulling. The end of the cable will then be attached to the 0.8-in (2 cm) diameter wire rope which was placed during the last cleaning step and attached to the winch.

Once the cable has been rigged to the wire rope and all personnel and equipment are in place, the cable will be pulled through the conduit with the onshore winch. Once the end of the cable reaches the Sandspit Beach parking lot manhole trench, holding clamps and cables will be attached to temporarily hold the cable in-place. The end of the marine cable will then be placed into the manhole and permanently secured with a cable stopper. At this point, all temporary clamps and cables will be removed. The cable vessel will be in-place for two days and the cable pulling operation will be completed within one day. No lubricants will be used during the cleaning, testing or cable pulling processes. Divers will use water and air jets to bury the cable from the conduit terminus to a maximum water depth of approximately 98 feet (30 m) and the cable lay vessel will prepare for ROV burial operations in the deeper water areas of the cable corridor.

The final step will be to splice the marine cable to the terrestrial fiber optic and power cables. Once this is completed, split steel pipe will be placed over the exposed cable from the outside wall of the manhole to the end of conduit, and the trench will then be backfilled and compacted. Once all equipment is demobilized, the surface will be restored to its original condition.

## **Shore-End Segment Schedule**

Activities within the Sandspit beach parking lot and nearshore areas are expected to take approximately two weeks to complete.

## **2.4.2 Marine Segment**

### **Pre-Lay Grapnel Clearance**

The purpose of a pre-lay grapnel clearance is to remove debris, such as discarded fishing gear, from the seafloor within the offshore portion of the cable corridor and along the proposed cable alignment in areas where the cable will be buried. To accomplish this, a grapnel, typically of the "flatfish" type, will be dragged along the cable route prior to cable installation. The grapnel will be attached to a length of chain to ensure that it remains in contact with the bottom and will be towed by a workboat similar to the M/V American Endeavor at a speed of about 1 mile per hour (mph) (1.6 km/hr).

The arms of the grapnel will penetrate the sedimentary seafloor to a depth of approximately 1.3 feet (0.4 m) and are designed to hook debris within an approximately 3 foot-wide (0.9 m-wide) corridor. If debris is hooked, towing ceases and the grapnel and attached debris are retrieved by winch. Any debris recovered during the operation will be stowed onboard the vessel for subsequent onshore recycling or disposal at an approved location.

The grapnel clearance will be completed in sedimentary habitats from the 6,000 foot (1,830 m) isobath to as far inshore as safe vessel operations can occur. These activities will occur two to three weeks in advance of the arrival of the cable lay vessel and are expected to take approximately seven days to complete (two days within State waters and five days within the area seaward of the three-mile limit to the 6,000 foot [1,830 m] isobath).

### **Cable Lay Operations**

The primary cable lay vessel will approach the continental shelf of California having laid cable from Hawaii. Between the point where the water depth is 6,000 feet (1,830 m) and the end of the bore pipe near shore, the cable is designed to be buried except in hard-bottom areas. Burial will be achieved using plough or other post lay burial methods. For those areas that are designed to be buried, but for which use of the plough is not feasible, the cable will be initially laid directly on the ocean floor until the post lay burial methods described below can be employed. Once the main cable ship reaches the point approximately 300 feet (92 m) off of the end of the conduit, the cable will be pulled from the ship, through the conduit, and secured in the Sandspit Beach parking lot manhole.

## **Cable Burial**

Following completion of the shore-end operations, including diver-burial of the cable to the 98-foot (30 m) isobath, ROV burial of the cable will be completed by the cable lay vessel. In accordance with clauses in the existing fishing/cable agreement, AT&T proposes to bury the marine cable to a target depth of 3.3 feet (1.0 m) for that portion of the cable route from the end of the conduit to the 6,000-foot (1,830 m) isobath, except where burial is infeasible due to localized conditions. Figure 2-8 provides a graphic of the Geological Conditions identified along the proposed cable route. The actual burial depth achieved will depend upon the stiffness of the soil encountered. As shown in Figure 2-9, in water depths between 330 and 6,000 feet (100 and 1,830 m), a plow will be used to bury the cable. The cable will be buried with an ROV-provided water jet within the inshore areas of sedimentary habitat between the 98- and 330-foot (30 and 100 m) isobaths.

Cable plowing can be used to bury the marine cable between the water depths of 330 and 6,000 feet (100 to 1,830 m). A cable plow is a large sled that is deployed by the main cable ship after the shore-end landing operations are complete. The mechanical movements of the plow are controlled by an operator who uses an onboard video camera to monitor the plow's operation. As it is towed, the plow mechanically buries the cable to its desired depth by creating a furrow in the ocean floor sediments while at the same time feeding the cable into the furrow in one operation.

Where the plow burial tool cannot achieve targeted burial depth due to bottom conditions, an ROV will be used to achieve the burial depth within the ROV's operating depth range. The water jetting system on the ROV will resuspend the surficial sediments around and under the cable, which will have been laid on the ocean floor by the cable ship, allowing the cable to settle to the desired depth. The disturbed sediments then settle back onto the area to the original grade, burying the cable.

The ROV will be deployed and operated from a vessel of opportunity, similar to that used as the diver-support vessel during construction. The ROV moves under its own power and is tethered to and guided from the support vessel.

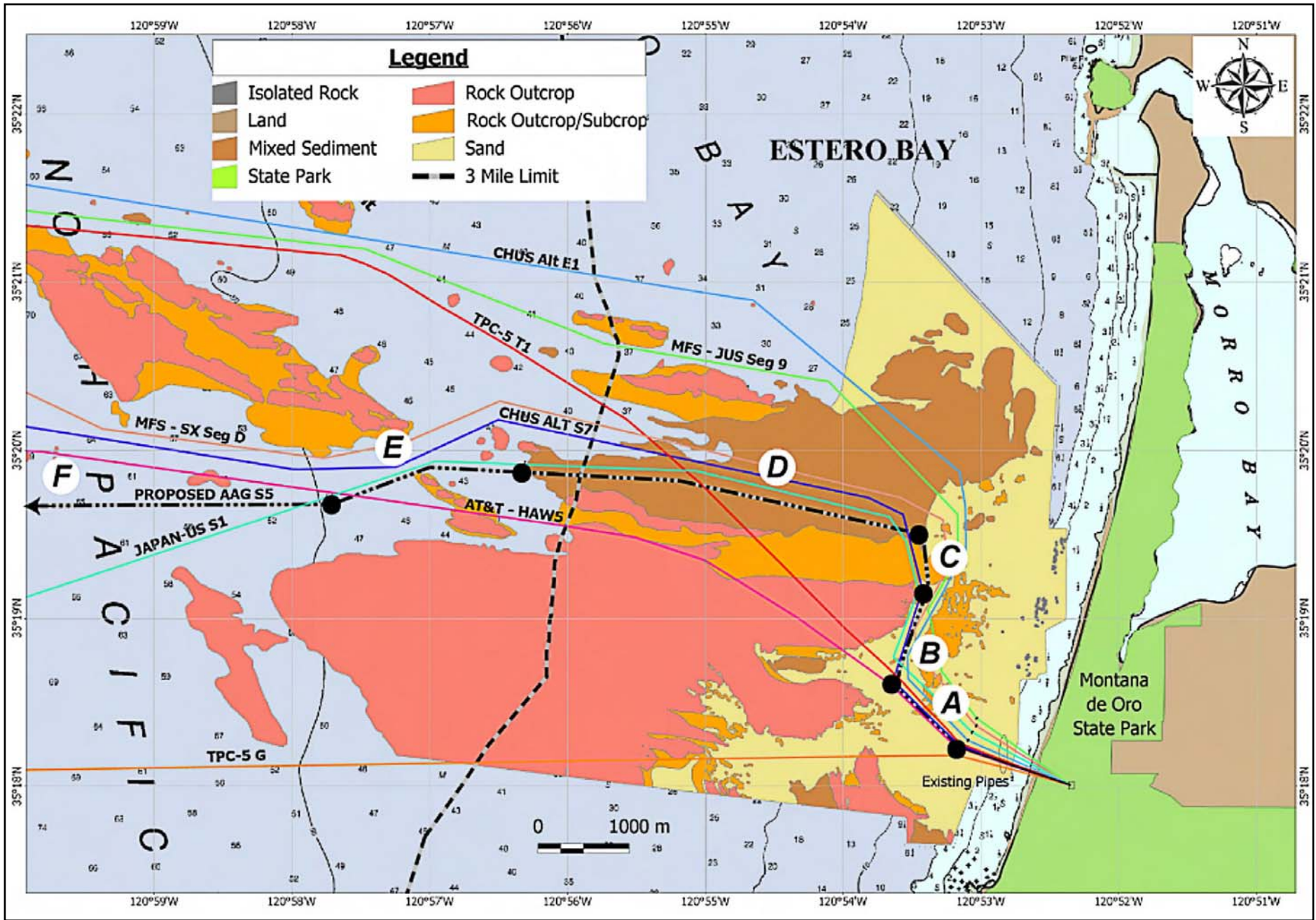
## **Marine Segment Schedule**

The laying and burial of the marine segment from the 6,000-foot (1,830 m) isobath to the conduit will take approximately four weeks to complete; two weeks for cable lay operations and two additional weeks for the burial.

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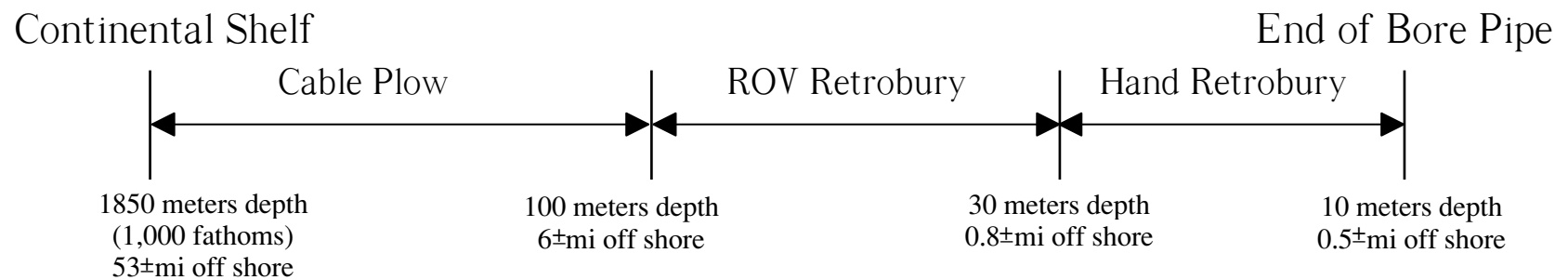




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## **Post-Installation/As-Built Survey**

A post installation survey will be completed and a technical report will be prepared and submitted within 90 days of completing the cable lay. The field data collection will take approximately seven days to complete and will consist of a video survey completed with an ROV. Per lease requirements, the video survey will verify that the cable, which has remained buried, is consistent with the as-built cable burial plans and will serve to confirm the alignment of the cable for subsequent nautical chart revisions.

## **Operation**

The proposed fiber optic system is designed to allow light pulses to be transmitted approximately 47 miles (76 km) along the fiber optic cable before the need to be regenerated. This regeneration is accomplished by regenerator equipment attached to the cable at the appropriate intervals. The regeneration equipment uses direct current (DC) electricity which is produced at the San Luis Obispo cable station.

The fiber optic cable to be installed for the marine portion of the Project contains a copper conductor to transmit the DC electrical power to the regenerators. Because it is DC electricity, no potential electrocution hazards to humans or animals exist. The direct current does generate a mild magnetic field that is on the order of 5 milligauss at 3.3 feet (1.0 m) from the cable (AT&T 2007). This field is roughly one percent as strong as the earth's magnetic field. The field diminishes rapidly with distance from the cable such that at 33 feet (10 m) it would be approximately 0.5 milligauss (roughly one tenth of one percent of the earth's magnetic field).

### **2.4.3 Maintenance and Repair**

#### **Maintenance**

Other than ensuring that the power feed and transmission equipment in the terminal station are in proper working order, no routine maintenance is planned for this Project. The marine cable is warranted to last for 25 years and will be inspected with an ROV to confirm burial at a frequency specified in the lease. Due to the stability of the ocean bottom environment, it is anticipated that regular maintenance of the marine cable will not be necessary.

## 1 Recovery and Repair

2 In the event of cable fault (point at which transmission is interrupted), emergency repair  
3 of the marine cable may be necessary. For a typical shallow-water repair, low-  
4 frequency electroding is used to locate the fault and generally little, if any, extra cable  
5 needs to be added during the repair because of the shallow depth. If the repair is  
6 necessary in deep water, it may take longer to find the fault and a new section of cable  
7 (requiring two splices as opposed to one) may be necessary. This is due to the added  
8 length required in bringing the cable up to the cable ship for repairs.

9 If the cable is buried in the vicinity of the fault, a grapnel will be used by the repair  
10 vessel to recover the cable from burial depths of up to 20 inches (51 cm). If deeper  
11 burial is encountered, a de-trenching grapnel, divers, or an ROV will be used to remove  
12 sediment around the cable prior to bringing it to the surface for repairs.

13 If the cable is not buried in the vicinity of the fault (e.g., because of the presence of rock  
14 outcroppings), the cable will be brought to the surface without prior cutting, provided  
15 there is sufficient bottom slack. Otherwise, a cutting blade will be fitted to a grapnel,  
16 and the cable will be cut close to the fault location prior to recovery.

17 After the cable is recovered, the end will be prepared and the fibers will be tested using  
18 a conventional optical time-domain reflectometer (OTDR). Additionally, the power  
19 conductor path will be checked to verify the absence of a shunt fault (fault to the power  
20 conductor).

21 The recovered end will be sealed and buoyed off, for easy recovery later. Next, the  
22 other end will be recovered and similarly tested to more precisely locate the fault. The  
23 repair vessel will then recover the cable until the fault is aboard. The fault site (either  
24 cable or repeater) will be removed from the system, and the repaired cable will be  
25 joined to the fault-free cable end. The repaired cable will be paid out as the vessel  
26 returns to the buoyed end. Before overboarding the joint, the system will be powered  
27 and tested from the terminal stations to verify proper direct current (DC) and  
28 transmission performance. The overboarded cable will then be buried by an ROV if it  
29 came from a buried section or will be laid onto the bottom if it came from an unburied  
30 section.

#### 2.4.4 Cable Abandonment and Removal

The proposed Project does not include the specific details of cable retirement. The cable is expected to operate for a minimum of 25 years but it is unknown exactly how long the cable will be in use. Options upon retirement include donation to a research entity, sale to another owner-operator, retirement in place, or removal and salvage. Any future decision on retirement will depend on the then-existing conditions. The CSLC lease terms state that upon the expiration or earlier termination of a lease, the CSLC, at its discretion, may take title to any or all improvements, or require that all or any portion of the cables be removed. Prior to removing any or all improvements, all permits or other governmental approvals will have to be obtained, including CSLC environmental review.

Removal or abandonment of that portion of the conduit and cable within the leasing jurisdiction of the CSLC would be subject to the prior authorization of the CSLC. A CSLC Lease 21 issued in connection with a new fiber optic cable project contains specific provisions to address the eventual abandonment “in place” or removal of such facilities and addresses the restoration of the Leased Premises. To insure that such provisions are addressed by the Lessee, posting of a sufficient bond by the Lessee will be required prior to issuance or assignment of a fiber optic cable lease.

A generic description of a full-removal scenario for the portion of the cable within State waters is described below.

To facilitate the cable disposition determination, upon expiration or termination of the lease, an ROV inspection will be conducted along the cable route to a water depth of 6,000 feet (1,830 m) to evaluate the condition of the cable and the corresponding seabed alignment. AT&T will present a specific proposal to the CSLC and other appropriate agencies addressing the proposed disposition of the cable, the activities required to implement the proposed action and specify the approved action(s).

The exact type of equipment that would be used to remove the cable is not known; however, activities would likely require the use of diesel-powered cable-pulling equipment located at the Sandspit Beach parking lot and a dynamically positioned ocean-going vessel to control the cable excavation, sectioning, and retrieval activities. An example scenario for cable removal is provided below.

1 During cable removal activities an ROV and/or grapnel will be used to locate and cut the  
2 cable. An ROV or diver will attach a retrieval line to the cable on the seafloor. Once  
3 excavated, the cable will be severed at appropriate lengths and brought to the surface  
4 by the retrieval vessel. Cable that remained on the sea floor will also be severed and  
5 brought to the surface in sections. In hard-bottom areas, cable that was originally laid  
6 on the surface, and which has not been encrusted or overgrown with biota, will be  
7 severed at appropriate lengths for recovery using a ROV. In contrast, cable that was  
8 substantially encrusted or overgrown and effectively "cemented" to the bottom will be  
9 recovered to the extent feasible using a ROV to pull on the cable and attempt to cut and  
10 recover the sections. The portion of the cable that was laid in the conduit will be drawn  
11 onto a cable reel onboard a vessel, similar to that used for installation. Cable removal  
12 activities are expected to require approximately 20 days to complete. The existing  
13 cable conduit extending from the Sandspit Beach parking lot offshore to the exit location  
14 will be abandoned in place.